

Anand Kumar

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

93
papers

2,341
citations

32
h-index

44
g-index

98
ext. papers

2,901
ext. citations

5.5
avg, IF

5.86
L-index

| # | Paper | IF | Citations |
|----|---|------|-----------|
| 93 | Electrocatalytic Oxidation of Methanol Over Silver-Based Ag-M/C (M = Cu, Zn, Fe, Cr, Mn) Electrocatalysts Synthesized by Solution Combustion Technique. <i>Journal of the Electrochemical Society</i> , 2022 , 169, 054510 | 3.9 | 0 |
| 92 | Design of Ni/La ₂ O ₃ catalysts for dry reforming of methane: Understanding the impact of synthesis methods. <i>International Journal of Hydrogen Energy</i> , 2021 , | 6.7 | 1 |
| 91 | Solution combustion synthesis of Ni/LaO for dry reforming of methane: tuning the basicity alkali and alkaline earth metal oxide promoters.. <i>RSC Advances</i> , 2021 , 11, 33734-33743 | 3.7 | 1 |
| 90 | Electrocatalytic conversion of CO ₂ over in-situ grown Cu microstructures on Cu and Zn foils. <i>Journal of CO₂ Utilization</i> , 2021 , 53, 101749 | 7.6 | 3 |
| 89 | Catalytic Methane Decomposition to Carbon Nanostructures and CO-Free Hydrogen: A Mini-Review. <i>Nanomaterials</i> , 2021 , 11, | 5.4 | 10 |
| 88 | Ag/Co ₃ O ₄ as an effective catalyst for glycerol electro-oxidation in alkaline medium. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 4788-4797 | 6.7 | 8 |
| 87 | Enhancing the electrocatalytic properties of LaMnO ₃ by tuning surface oxygen deficiency through salt assisted combustion synthesis. <i>Catalysis Today</i> , 2021 , 375, 484-493 | 5.3 | 11 |
| 86 | A thermodynamic study of propanol reforming in presence of hydrazine for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 4716-4723 | 6.7 | 2 |
| 85 | A review of g-C ₃ N ₄ based catalysts for direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2021 , | 6.7 | 4 |
| 84 | Development of Co/Co ₉ S ₈ metallic nanowire anchored on N-doped CNTs through the pyrolysis of melamine for overall water splitting. <i>Electrochimica Acta</i> , 2021 , 368, 137642 | 6.7 | 11 |
| 83 | Highly efficient methanol oxidation reaction on durable Co ₉ S ₈ @N, S-doped CNT catalyst for methanol fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2021 , | 6.7 | 1 |
| 82 | Synthesis of hydroxide nanoparticles of Co/Cu on carbon nitride surface via galvanic exchange method for electrocatalytic CO ₂ reduction into formate. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020 , 598, 124835 | 5.1 | 9 |
| 81 | Preparation of Mesoporous/Microporous MnCo ₂ O ₄ and Nanocubic MnCr ₂ O ₄ Using a Single Step Solution Combustion Synthesis for Bifunction Oxygen Electrocatalysis. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 054507 | 3.9 | 12 |
| 80 | Recent advances in cobalt based heterogeneous catalysts for oxygen evolution reaction. <i>Inorganica Chimica Acta</i> , 2020 , 511, 119854 | 2.7 | 26 |
| 79 | Development of CuAg/CuO nanoparticles on carbon nitride surface for methanol oxidation and selective conversion of carbon dioxide into formate. <i>Journal of Colloid and Interface Science</i> , 2020 , 578, 726-737 | 9.3 | 18 |
| 78 | Synthesis of fumed silica supported Ni catalyst for carbon dioxide conversion to methane 2020 , 10, 715-724 | | 2 |
| 77 | An active and stable NiOMgO solid solution based catalysts prepared by paper assisted combustion synthesis for the dry reforming of methane. <i>Applied Catalysis B: Environmental</i> , 2020 , 273, 119056 | 21.8 | 14 |

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|----|---|------|----|
| 76 | Electrochemical oxidation of ammonia on nickel oxide nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 10398-10408 | 6.7 | 35 |
| 75 | Heavy metal ions removal from industrial wastewater using magnetic nanoparticles (MNP). <i>Applied Surface Science</i> , 2020 , 506, 144924 | 6.7 | 94 |
| 74 | Thermochemical splitting of CO ₂ using solution combustion synthesized LaMO ₃ (where, M=Co, Fe, Mn, Ni, Al, Cr, Sr). <i>Applied Surface Science</i> , 2020 , 509, 144908 | 6.7 | 2 |
| 73 | Synthesis and growth mechanism of bamboo like N-doped CNT/Graphene nanostructure incorporated with hybrid metal nanoparticles for overall water splitting. <i>Carbon</i> , 2020 , 170, 452-463 | 10.4 | 23 |
| 72 | Nanosheet Synthesis of Mixed CoO/CuO Combustion Method for Methanol Oxidation and Carbon Dioxide Reduction. <i>Langmuir</i> , 2020 , 36, 12760-12771 | 4 | 10 |
| 71 | A review of recent advances in water-gas shift catalysis for hydrogen production. <i>Emergent Materials</i> , 2020 , 3, 881-917 | 3.5 | 34 |
| 70 | A comprehensive and critical review on recent progress in anode catalyst for methanol oxidation reaction. <i>Catalysis Reviews - Science and Engineering</i> , 2020 , 1-103 | 12.6 | 41 |
| 69 | Effect of fuel content on the electrocatalytic methanol oxidation performance of Pt/ZnO nanoparticles synthesized by solution combustion. <i>Applied Surface Science</i> , 2019 , 492, 73-81 | 6.7 | 9 |
| 68 | Probing the effect of combustion controlled surface alloying in silver and copper towards ORR and OER in alkaline medium. <i>Journal of Electroanalytical Chemistry</i> , 2019 , 844, 66-77 | 4.1 | 18 |
| 67 | Highly active and stable bi-functional NiCo ₂ catalyst for oxygen reduction and oxygen evolution reactions in alkaline medium. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 16603-16614 | 6.7 | 31 |
| 66 | Effect of Ni incorporation in cobalt oxide lattice on carbon formation during ethanol decomposition reaction. <i>Applied Catalysis B: Environmental</i> , 2019 , 254, 300-311 | 21.8 | 16 |
| 65 | Current Trends in Cellulose Assisted Combustion Synthesis of Catalytically Active Nanoparticles. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 7681-7689 | 3.9 | 14 |
| 64 | Highly efficient nonenzymatic glucose sensors based on CuO nanoparticles. <i>Applied Surface Science</i> , 2019 , 481, 712-722 | 6.7 | 37 |
| 63 | Photocatalytic conversion of CO ₂ and H ₂ O to useful fuels by nanostructured composite catalysis. <i>Applied Surface Science</i> , 2019 , 483, 363-372 | 6.7 | 21 |
| 62 | A decade of ceria based solar thermochemical H ₂ O/CO ₂ splitting cycle. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 34-60 | 6.7 | 76 |
| 61 | Combustion synthesis: a novel method of catalyst preparation. <i>Catalysis</i> , 2019 , 297-346 | 1.6 | 9 |
| 60 | Galvanic Exchange as a Novel Method for Carbon Nitride Supported CoAg Catalyst Synthesis for Oxygen Reduction and Carbon Dioxide Conversion. <i>Catalysts</i> , 2019 , 9, 860 | 4 | 7 |
| 59 | Influence of fuel ratio on the performance of combustion synthesized bifunctional cobalt oxide catalysts for fuel cell application. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 436-445 | 6.7 | 27 |

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| 58 | Zn-enriched PtZn nanoparticle electrocatalysts synthesized by solution combustion for ethanol oxidation reaction in an alkaline medium. <i>MRS Communications</i> , 2018 , 8, 411-419 | 2.7 | 8 |
| 57 | Delivery of Immunomodulatory Microparticles in a Murine Model of Rotator Cuff Tear. <i>MRS Advances</i> , 2018 , 3, 1341-1346 | 0.7 | 1 |
| 56 | Combustion synthesis of bifunctional LaMO ₃ (M = Cr, Mn, Fe, Co, Ni) perovskites for oxygen reduction and oxygen evolution reaction in alkaline media. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 809, 22-30 | 4.1 | 76 |
| 55 | Transition metal doped ceria for solar thermochemical fuel production. <i>Solar Energy</i> , 2018 , 172, 204-2116.8 | 16.8 | 44 |
| 54 | Mineralization of dichloromethane using solar-oxidation and activated TiO ₂ : Pilot scale study. <i>Solar Energy</i> , 2018 , 172, 116-127 | 6.8 | 11 |
| 53 | Potential use of solar photocatalytic oxidation in removing emerging pharmaceuticals from wastewater: A pilot plant study. <i>Solar Energy</i> , 2018 , 172, 128-140 | 6.8 | 28 |
| 52 | Synthesis of Highly Efficient Bifunctional Ag/CoO Catalyst for Oxygen Reduction and Oxygen Evolution Reactions in Alkaline Medium. <i>ACS Omega</i> , 2018 , 3, 7745-7756 | 3.9 | 41 |
| 51 | Surface Alloying in Silver-Cobalt through a Second Wave Solution Combustion Synthesis Technique. <i>Nanomaterials</i> , 2018 , 8, | 5.4 | 16 |
| 50 | Preparation of Nanoparticles via Cellulose-Assisted Combustion Synthesis. <i>International Journal of Self-Propagating High-Temperature Synthesis</i> , 2018 , 27, 141-153 | 0.7 | 14 |
| 49 | Single Step Synthesis of Porous NiCoO ₂ for Effective Electrooxidation of Glycerol in Alkaline Medium. <i>Journal of the Electrochemical Society</i> , 2018 , 165, J3301-J3309 | 3.9 | 23 |
| 48 | Low Temperature Activation of Carbon Dioxide by Ammonia in Methane Dry Reforming: Thermodynamic Study. <i>Catalysts</i> , 2018 , 8, 481 | 4 | 6 |
| 47 | Kinetics of reactive absorption of CO ₂ using aqueous blend of potassium carbonate, ethylaminoethanol, and N-methyl-2-Pyrrolidone (APCEN solvent). <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018 , 89, 191-197 | 5.3 | 3 |
| 46 | Thermodynamic evaluation of hydrazine assisted glycerol reforming for syngas production and coke inhibition. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 12999-13008 | 6.7 | 9 |
| 45 | Thermodynamic analysis of solar driven SnO ₂ /SnO based thermochemical water splitting cycle. <i>Energy Conversion and Management</i> , 2017 , 135, 226-235 | 10.6 | 82 |
| 44 | Effectiveness of Ni incorporation in iron oxide crystal structure towards thermochemical CO ₂ splitting reaction. <i>Ceramics International</i> , 2017 , 43, 5150-5155 | 5.1 | 39 |
| 43 | Study of ethanol dehydrogenation reaction mechanism for hydrogen production on combustion synthesized cobalt catalyst. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 23464-23473 | 6.7 | 41 |
| 42 | La-Based Perovskites as Oxygen-Exchange Redox Materials for Solar Syngas Production. <i>MRS Advances</i> , 2017 , 2, 3365-3370 | 0.7 | 19 |
| 41 | Catalytic Reduction of CO ₂ into Solar Fuels via Ferrite Based Thermochemical Redox Reactions. <i>MRS Advances</i> , 2017 , 2, 3389-3395 | 0.7 | |

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| 40 | Kinetics of CO ₂ Adsorption/Desorption of Polyethyleneimine-Mesoporous Silica. <i>Chemical Engineering and Technology</i> , 2017 , 40, 1802-1809 | 2 | 11 |
| 39 | Solar thermochemical ZnO/ZnSO ₄ water splitting cycle for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 23474-23483 | 6.7 | 49 |
| 38 | Advanced wastewater treatment using microalgae: effect of temperature on removal of nutrients and organic carbon. <i>IOP Conference Series: Earth and Environmental Science</i> , 2017 , 67, 012032 | 0.3 | 10 |
| 37 | PdZn nanoparticle electrocatalysts synthesized by solution combustion for methanol oxidation reaction in an alkaline medium. <i>RSC Advances</i> , 2017 , 7, 42709-42717 | 3.7 | 14 |
| 36 | A comparative thermodynamic analysis of samarium and erbium oxide based solar thermochemical water splitting cycles. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 23416-23426 | 6.7 | 47 |
| 35 | Solar thermochemical Dy ₂ O ₃ /DyO water splitting cycle for hydrogen production. <i>International Journal of Exergy</i> , 2017 , 22, 54 | 1.2 | 4 |
| 34 | Thermodynamic exergy analysis of dysprosium oxide-based solar thermochemical water-splitting cycle. <i>International Journal of Exergy</i> , 2017 , 23, 226 | 1.2 | 3 |
| 33 | Thermodynamic investigation of hydrogen enrichment and carbon suppression using chemical additives in ethanol dry reforming. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 15149-15157 | 6.7 | 12 |
| 32 | Removal of volatile sulfur compounds by solar advanced oxidation technologies and bioprocesses. <i>Solar Energy</i> , 2016 , 135, 348-358 | 6.8 | 9 |
| 31 | Sol-gel derived CeO ₂ /Fe ₂ O ₃ nanoparticles: Synthesis, characterization and solar thermochemical application. <i>Ceramics International</i> , 2016 , 42, 6728-6737 | 5.1 | 37 |
| 30 | Removal of emerging pharmaceuticals from wastewater by ozone-based advanced oxidation processes. <i>Environmental Progress and Sustainable Energy</i> , 2016 , 35, 982-995 | 2.5 | 55 |
| 29 | In situ DRIFTS Studies on Cu, Ni and CuNi catalysts for Ethanol Decomposition Reaction. <i>Catalysis Letters</i> , 2016 , 146, 778-787 | 2.8 | 40 |
| 28 | Solar co-production of samarium and syngas via methanothermal reduction of samarium sesquioxide. <i>Energy Conversion and Management</i> , 2016 , 112, 413-422 | 10.6 | 28 |
| 27 | Assessment of Ce Zr Hf O ₂ based oxides as potential solar thermochemical CO ₂ splitting materials. <i>Ceramics International</i> , 2016 , 42, 9354-9362 | 5.1 | 47 |
| 26 | Propylene oxide assisted sol-gel synthesis of zinc ferrite nanoparticles for solar fuel production. <i>Ceramics International</i> , 2016 , 42, 2431-2438 | 5.1 | 28 |
| 25 | Solar Thermochemical Hydrogen Production via Terbium Oxide Based Redox Reactions. <i>International Journal of Photoenergy</i> , 2016 , 2016, 1-9 | 2.1 | 40 |
| 24 | Solar Hydrogen Production via a Samarium Oxide-Based Thermochemical Water Splitting Cycle. <i>Energies</i> , 2016 , 9, 316 | 3.1 | 52 |
| 23 | Solar hydrogen production via erbium oxide based thermochemical water splitting cycle. <i>Journal of Renewable and Sustainable Energy</i> , 2016 , 8, 034702 | 2.5 | 42 |

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| 22 | Cobalt oxide nanopowder synthesis using cellulose assisted combustion technique. <i>Ceramics International</i> , 2016 , 42, 12771-12777 | 5.1 | 37 |
| 21 | CO ₂ Capture Using Aqueous Potassium Carbonate Promoted by Ethylaminoethanol: A Kinetic Study. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 5238-5246 | 3.9 | 28 |
| 20 | Catalytic evaluation of nickel nanoparticles in methane steam reforming. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 22876-22885 | 6.7 | 42 |
| 19 | Thermochemical Conversion of CO ₂ into Solar Fuels Using Ferrite Nanomaterials 2015 , 141-148 | | 1 |
| 18 | Single step synthesis of transition metal nanoparticles in aqueous phase for catalytic applications 2015 , 69-80 | | 1 |
| 17 | Thermodynamic Analysis of Solar Fuel Production via Thermochemical H ₂ O and/or CO ₂ Splitting Using Tin Oxide Based Redox Reactions 2015 , 39-48 | | 1 |
| 16 | Modeling of Reaction Front Movement in Combustion Synthesis for Catalyst Preparation 2015 , 391-399 | | |
| 15 | Solar Fuel Production via Non-Stoichiometric Ce _x Zr _y Hf _z O ₂ -Based Two-Step Thermochemical Redox Cycle 2015 , 117-124 | | 1 |
| 14 | Cellulose assisted combustion synthesis of porous Cu/Ni nanopowders. <i>RSC Advances</i> , 2015 , 5, 28703-28712 | 3.7 | 51 |
| 13 | Combustion synthesis of copper/nickel catalysts for hydrogen production from ethanol. <i>Chemical Engineering Journal</i> , 2015 , 278, 46-54 | 14.7 | 53 |
| 12 | Solar hydrogen production via thermochemical iron oxide/iron sulfate water splitting cycle. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 1639-1650 | 6.7 | 70 |
| 11 | Sol-Gel Synthesis of Nanocrystalline Ni-Ferrite and Co-Ferrite Redox Materials for Thermochemical Production of Solar Fuels. <i>Materials Research Society Symposia Proceedings</i> , 2014 , 1675, 203-208 | | 18 |
| 10 | In situ XAS and FTIR studies of a multi-component Ni/Fe/Cu catalyst for hydrogen production from ethanol. <i>Applied Catalysis A: General</i> , 2013 , 467, 593-603 | 5.1 | 36 |
| 9 | Hydrogen production by ethanol decomposition and partial oxidation over copper/copper-chromite based catalysts prepared by combustion synthesis. <i>Catalysis Today</i> , 2013 , 203, 163-175 | 5.3 | 31 |
| 8 | Combustion Synthesis of a Nickel Supported Catalyst: Effect of Metal Distribution on the Activity during Ethanol Decomposition. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 12004-12008 | 3.9 | 46 |
| 7 | Solution combustion synthesis of metal nanopowders: Nickel Reaction pathways. <i>AIChE Journal</i> , 2011 , 57, 2207-2214 | 3.6 | 91 |
| 6 | Solution combustion synthesis of metal nanopowders: Copper and copper/nickel alloys. <i>AIChE Journal</i> , 2011 , 57, 3473-3479 | 3.6 | 64 |
| 5 | Combustion synthesis of Ni, Fe and Cu multi-component catalysts for hydrogen production from ethanol reforming. <i>Applied Catalysis A: General</i> , 2011 , 401, 20-28 | 5.1 | 60 |

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| 4 | Modeling Impregnated Layer Combustion Synthesis of Catalyts for Hydrogen Generation from Oxidative Reforming of Methanol. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 11001-11008 | 3.9 | 22 |
| 3 | Impregnated layer combustion synthesis method for preparation of multicomponent catalysts for the production of hydrogen from oxidative reforming of methanol. <i>Applied Catalysis A: General</i> , 2010 , 372, 175-183 | 5.1 | 56 |
| 2 | Ethanol Decomposition and Dehydrogenation for Hydrogen Production: A Review of Heterogeneous Catalysts. <i>Industrial & Engineering Chemistry Research</i> , | 3.9 | 2 |
| 1 | Effect of nickel on combustion synthesized copper/fumed-SiO ₂ catalyst for selective reduction of CO ₂ to CO. <i>International Journal of Energy Research</i> , | 4.5 | 1 |